

PATENTS

(Attorney File: 00-012)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
STEVEN M. KASSUBA)
Serial No. 09/919,277)
Filed: July 31, 2001)
For: CRUSHING - BREAKING)
APPARATUS)

Group Art: 3725
Examiner: W. Donald Bray

INFORMATION DISCLOSURE
STATEMENT

The Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. 1.56, 37 C.F.R. 1.97, and 37 C.F.R. 1.98, applicant herewith submits respective copies of the following documents:

Document-A is United States of America Letters Patent 3,156,421 dated November 10, 1964, with the patentee being K.V. Lute;

Document-B is United States of America Letters Patent 4,768,723 dated September 6, 1988, with the patentee being S.J. Fritz;

Document-C is United States of America Letters Patent 5,462,237 dated October 31, 1995, with the patentee being H.P. Wellmann;

Document-D is United States of America Letters Patent 5,791,573 dated August 11, 1998, with the patentee being Yasuaki Okuya;

Document-E is United States of America Letters Patent 6,145,768 dated November 14, 2000, with the patentee being Yasuaki Okuya;

Document-F is a copy of a patent related document No. 27-9879 issued by Japan and dated November, 1927;

Document-G is a copy of a patent related document No. 55-16801 issued by Japan and dated June, 1952;

Document-H is a copy of a patent related document No. 54-3953 issued by Japan, dated January, 1973, and, it appears possibly also filed in the European Patent Office;

Document-I is a copy of a patent related document No. 54-39261 issued by Japan and dated March, 1979;

Document-J is a copy of a patent related document No. 60-33542 issued by Japan and dated April, 1985;

Document-K is a copy of a patent related document No. 62-279849 issued by Japan and dated February, 1987;

Document-L is a copy of a patent related document No. 62-95736 issued by Japan and dated June, 1987;

Document-M is a copy of a patent related document No. 5-184959 issued by Japan and dated July, 1993;

Document-N is a copy of a patent related document No. 6-182238 issued by Japan and dated April, 1994;

Document-O is a copy of a patent related document No. 6-106083 issued by Japan and dated April, 1994;

Document-P is a copy of a patent related document No. 251533 issued by Germany and dated May, 1911;

Document-Q is a copy of a patent related document #1,085,401 issued by Germany and dated July, 1960;

Document-R is a copy of a patent related document # 2,621,043 issued by Germany and dated December, 1976;

Document-S is a copy of a patent related document # 2,409,474 issued by France and dated June, 1979;

Document-T is a copy of a patent related document # WO85/03887 having a publication date of September, 1985;

Document-U is a copy of a patent related document No. 656325 issued by Switzerland and dated June 1986.

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Simultaneously with this instrument applicant is submitting a completed Form PTO-1449 on which are listed all of the foregoing identified Documents and further herewith submits respective copies of all of said Documents. On each of said copies of said Documents there appears: (a) the Document Identification such as Document-A, Document-B, etc; (b) the inventor's name; (c) the Application Serial Number; (d) the Application filing date; (e) Group Art Unit Number and (f) the Examiner's name.

Discussion

For ease of discussion, in the following all of the identified Documents will be referred to merely as Document-A, Document-B, etc.

Regarding Document-A: This patent discloses a jaw crusher 10 and rock crushing jaw 11 as shown in Figures 1 and 2. An eccentric shaft 12 actuates a moving jaw wedge 15 and connected toggle plate 16. Secured to the moving jaw wedge 15 is a movable jaw crusher plate 20 (Fig.2). Confronting the movable crusher plate 20 is a stationary crusher plate 21. Rock is fed into a hopper 23 and passes between movable plate 20 and stationary plate 21. The forward and downward movement of the movable plate 20 forces the fractured rock to be discharged through an outlet 24. The rock engaging surface of the movable plate 20 comprises a plurality of transversely disposed ridges 31. The rock engaging surface 45 of

the stationary plate comprises a plurality of transversely disposed ridges 46. The ridges 31 and 46 are further defined as to their patterns, relative relationships and geometric configurations. Document-A neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-B: This patent discloses a crushing structure (Fig. 3) having side walls 57, 58 each of which is fixed and secured to a non-moving or fixed jaw 40 which, in turn, is fixed as to longitudinal elements 32,33,34 and 35. As shaft 77 is made to rotate eccentric journals (pins) 80 and 82 oscillatingly drive arms 88 and 92 causing movable jaw 42 to move upwardly (Fig. 4A to Fig. 4B) then to move from Fig. 4B to Fig. 4C and then to move from Fig. 4C to Fig. 4D and lastly from Fig. 4D to Fig. 4A and completing its cycle. Such motion brings jaws 42 and 40 closer together and consequently crushing the ore or other material therebetween. The crushed material is permitted to fall as through a lower opening as generally depicted at C of Figure 3. Document-B neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-C: This patent discloses a stationary crushing jaw 7 and a movable crushing jaw 8 positioned as to define therebetween an adjustable outlet or discharge gap 17. Various configurations of protective elements 19 intended to be carried as by the crushing jaw 18 are depicted in Figures 2-5. Figure 6 depicts the addition of what is called a sheer strip 23 to the stationary jaw 7 as to be positioned generally below the opening or jaw gap so as to be able to even further break parts of the

load which are otherwise too long. Document-C neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-D: This patent is concerned with providing a crushing-breaking apparatus for breaking useless castings and the like into relatively small pieces enabling the easier handling thereof and the more efficient charging of such scrap into the furnaces for melting. As disclosed in Figures 3,4,10,11,13,14,15 and 16 a fixed (non-movable) cutlery device 4 is provided as to be in general opposed relationship to a swingably movable rocking cutlery device 9 pivotally carried by pivot 12 and hydraulically actuated generally toward (Fig. 4) and away from the fixed cutlery device 4 (of Fig. 4). As the devices 4 and 9 move toward each other, the material contained in space 15 between devices 4 and 9 is broken and/or crushed. The patentee also shows the use of a lower disposed hydraulically actuated stopper 32 for preventing relatively large pieces which may not have been broken or crushed to be prevented from falling through, thereby keeping such relatively large pieces between the cutlery devices so as to assure their being broken. Member 25 of Figures 13,14,15 and 16 is intended to provide the same function as stopper 32. Document-D neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-E: This patent is concerned with providing a crushing-breaking apparatus for breaking useless castings and the like into relatively small pieces, as was the patent of said Document-D. This Document-E patent was granted on an application filed November 27, 1998, while the Document-D patent was issued (date of patent) on August 11, 1998. Both Document-D and Document-

E have the same inventor. In any event, this patent discloses various shapes and arrangements of cutters as for example at 42-42, 42a, 42b and 42b' and ribs as at 53-53. Document-E neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Document-F: Neither applicant nor applicant's attorney of record has the ability to either read or understand the Japanese language. So the opinions herein expressed are based upon what is deduced from the drawings. (The same applies to the other non-english Documents considered in this Information Disclosure Citation.) Document-F discloses what may be the faces of opposed crushing or breaking plates or members and which may be fixed against movement and/or movable with such breaking plates or members. Document-F neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-G: This discloses a breaking and/or crushing apparatus having a fixed (non-movable) cutlery device 9 and a movable cutlery device 8. A member 3 driven by an eccentric 5 moves the cutlery device 8 generally upwardly and generally toward the fixed cutlery 9. It appears that the size of the bottom opening (i.e.. between 8 and 9) can be modified as via 11. Document-G neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-H: It is believed that this discloses, in Figure 1, a crushing apparatus having a fixed (non-moving) plate or backing member 3 and a moving plate member 2 between which a space 4 receives members or work 6 to be crushed as the moving

plate 2 swingably moves toward fixed plate member 3. An opening S at the bottom of plate members 2 and 3 permits the crushed material to exit therethrough. In Figure 2, it appears that element 11 is a fixed (non-moving) plate or backing member and that element 16 is a moving plate or member between which, the space 18 is filled with material to be worked. A laterally extending lower lip-like portion 20 projects below the generally juxtaposed laterally extending portion 14 of the lower end of the fixed backing member 11. Figures 3,4,5,6 and 7 show variations of the Figure 2, structure. It is believed, but not understood, that somehow when the moving plate member 16 is pivoted toward plate 11 and sufficiently urged thereagainst, the lip 20 is forced upwardly toward upper lip portion 14 further breaking or crushing the material in space 13 to a more uniform size and shape. Document-H neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-I: This discloses apparatus attempting to bring about more uniform size and shape of crushed aggregate. It appears that member 3 is fixed (non-movable) while member 4 is swingably movable toward and away from plate 3. As member or plate 4 moves toward plate 3, the material in space B between such plates 3 and 4 is crushed. A door-like closure 6 can be made to variably bring about selective closure of the discharge opening 5 thereby maintaining the material for a longer period of time in the space B. Figures 1,2,3a,3b,3c,3d,3e,3f,4a,4b,4c,4d,4e,4f,4g,5a,5b,5c,5d and 5e all appear to have variations in structure to at least slow down the out flow of the crushed aggregate. Document-I neither discloses, suggests nor hints at applicant's disclosed and

claimed invention.

Regarding Document-J: This discloses a breaking apparatus having piston assemblies 13--13 pivotally secured as at 14'--14'. It simply is not understood as to what the structure of Figure 1 comprises or what it does. The most that is understood from Figure 2 is a plurality of teeth 5--5. Document-J neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-K: This discloses a breaking and/or apparatus which is much concerned with the problems etc. as were the structures disclosed in Document-I. For example, Figures 1 and 2 as well as Figures 3 and 4 disclose door members (such as at 33 and 29) which prevent the easy pouring out of the crushed material from between opposed cooperating jaws 1 and 3. In the embodiments disclosed, cutlery 1 is fixed (non-movable) while while cutlery assembly 3 is movable toward and away from the fixed cutlery 1. It is not understood just how the structure of Figure 5 functions. Document-K neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-L: This discloses structure which is again concerned with the problems addressed in Document-I and Document-K. In the embodiment of Figure 1, a first movable crusher plate or member 22 is pivotally secured as at 24 and pivotally moved as by a pressure cylinder assembly 25 operatively secured to a plate backing member 22c. A second movable crusher plate or member 26 is pivotally secured as at 27 and pivotally moved as by a pressure cylinder assembly 28 operatively secured to a plate backing member 26b. The work to be crushed is passed into the

space between the crusher members 22 and 26, and pistons 25 and 28 are actuated causing members 22 and 26 to respectively pivot about 24 and 27 as to move toward each other and crush the work which, upon being thusly crushed falls onto conveyors 30 and 31. Figures 2(a) through 2(d) depict the general sequence of movements of crushing members 22 and 26. It is not understood what Figure 4 is intended to depict. It can only be guessed that 15 and 16 are pivotal crushing members both pivotally supported at their upper ends and moved toward and away from each other by respective piston assemblies at their lower ends. The structure of Figure 3 has already been noted in Document-K. Document-L neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-M: This document was obtained from the United States Patent and Trademark Office and such included a cover page captioned "Patent Abstracts of Japan" and included a two paragraph "Abstract" in the English language. However, applicant is unable to understand even the English "Abstract". It is, never the less, evident that Document-M neither discloses nor hints at applicant's disclosed and claimed invention.

Regarding Document-N: This discloses an apparatus for the breaking and/or crushing of unnecessary products of casting whereby melting furnaces can be more fully charged with smaller pieces. The apparatus comprises a fixed (non-moving) crushing member 41, carrying a cutlery 4, and a moving member 61 carrying a cutlery 6. The space between such members 41 and 61 is loaded with such products and the pressure cylinder is actuated causing

the member 61 to be swingably moved toward the fixed non-moving member 41 and thereby break and crush the products or work situated therebetween. Document-N neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-O: As far as can be seen and understood, this discloses as apparatus, and related operation, the same as that of said Document-N, with very minor exceptions none of which present any differences of consequence. Document-O neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-P: As best can be determined from the drawings, Figures 1 and 2 show what appears to be a breaking and/or crushing apparatus for breaking and/or crushing frangible goods or products into smaller pieces. As understood, a fixed (non-movable) crushing plate or member 78 is situated as opposed to a movable crushing jaw or member 17. A first eccentric 2 drives, mostly, the upper portion of the movable jaw or member 17 while a second eccentric 3 appears to move the lower portion of jaw or member 17 toward and away from the lower end of the fixed crushing plate 78. Document-P neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-Q: This discloses an apparatus as shown in Figures 1, 2 and 3 as comprising a motor 20 a pump 19, driven by 20, taking fluid from the reservoir 21 to a valving mechanism 18 whereby pressurized fluid is delivered via conduit 22 causing piston 16 to move to the left thereby moving the movable crushing member 12 toward the fixed crushing plate or member 11 and crushing any frangible material between 11 and 12 and preventing

the crushed material from spilling-out because of the closed door 14. The embodiment of Figures 4,5 and 6 differs by instead of having a door 14 and elongated cam 13, using a large transverse door 25 which is actuated to open by cams 28 engaged by the bottom of the movable crushing member 12. Document-O neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-R: This discloses a crushing-breaking apparatus, as for crushing stone, comprising a fixed (non-movable) crushing plate 2 with an opposed pivotally swingably crushing member 3 pivotally secured at its upper end and movable generally toward and away from the fixed crushing plate 2 as to thereby crush the rocks contained between opposed members 2 and 3. Document-R neither discusses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-S: It is not understood what the drawings disclose. Since the disclosure is not understood, it follows that Document-S neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-T: This shows a crusher having a frame 1 with a stationary crushing jaw 2 and a movable crushing jaw 3 pivotally connected to a stationary shaft 4. A connecting rod 8 eccentrically mounted on a flywheel 5 has a lower disposed bracket 9 projecting downwardly and has horizontally running grooves 10 and 11 which receive breaking plates 12,13. In operation the material to be crushed is fed between jaws 2,3. The movable jaw 3 moves around the shaft 4 and the entire action of the spring 20 assures that the breaking plates as 11,12 are retained in their

grooves. At this moment the downwardly fed material is crushed. Figure 2, in the main, is like the structure of Figure 1. Document-T neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

Regarding Document-U: It appears that this shows a cutting or shredding shear structure having a plurality of stationary cutleries 10 and a plurality of movable coacting cutleries 20. Viewing Figures 3,4,5a,5b and 5c it appears that one bank of stationary cutleries permits the passing therebetween of the second bank of cutleries and in so doing cutting and/or shredding the material generally held between 10--10 and 20--20. Document-U neither discloses, suggests nor hints at applicant's disclosed and claimed invention.

REMARKS

It is respectfully submitted, and firmly believed, that none of the said Documents, considered either singly or in any valid combination (In re Gerald McLaughlin, 170 USPQ 209; In re Schaffer, 108 USPQ 326; In re LaVerne and LaVerne, 108 USPQ 335; Mojonnier Dawson Co. v. U.S. Dairies Sales Corp., et al, 109 USPQ 84; In re Pennington, 113 USPQ 81; Pfizer, Inc. v. International Rectifier Corp., 207 USPQ 397, 406; In re Bergel and Stock, 130 USPQ 206; Berghauser et al v. Dann (Comm. of Patents), 204 USPQ 393; Colt Industries Operating Corp v. Werke KG, 205 USPQ 990,1001-1002; In re Imperato, 179 USPQ 730) meet or suggested applicant's disclosed and claimed invention.

It is requested that all of the Documents listed and supplied herewith be considered and that all of such be formally entered

as considered prior art and made a part of the file history of
this application Serial NO. 09/919,277 filed July 31, 2001.

Respectfully submitted,

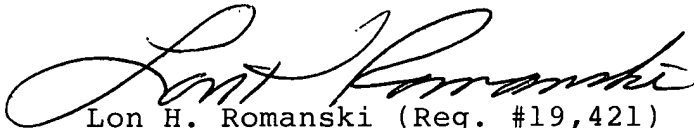
STEVEN M. KASSUBA

By: 

Dated: Feb. 27, 2003

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Included herewith is a separate letter, in duplicate,
authorizing the charging to attorney deposit account No. 501722 of
any fee which may be required for the filing of this Information
Disclosure Statement by the Small Entity of Record.


Lon H. Romanski (Reg. #19,421)

Dated: Feb. 27, 2003